Chapter 74
IPRs and Innovation, Technology Transfer, and Economic Welfare

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ABSTRACT

The TRIPS agreement states that Intellectual Property Rights (IPRs) protection should contribute to the promotion of technological innovation, economic welfare, and to the transfer and dissemination of technology. However, there is still no consensus on whether IPRs protection has achieved its goal. Thus, the chapter provides a discussion on how the impact of IPRs on innovation, technology transfer, and economic welfare is affected by the difference in the income level of the countries. The results suggest that in high-income and upper middle-income countries, IPRs have a positive impact in these variables. Nevertheless, it seems that in lower middle-income and low-income countries, IPRs have not increased innovation, spurred transfer of technology. or created economic welfare.

INTRODUCTION

Canon Inc. was one of the largest companies in Japan. In 2015, Canon employed 26,360 people and reported sales of US$37,596 million. This company was created in 1937 (Canon, 2016). In its early stage of development, due to the absence of Intellectual Property Rights (IPRs) in Japan, the firm began making products by reverse engineering of foreign camera products. In that time, most cameras were predominately European with the majority coming from Germany. For several years, Canon was widely recognized as one of the most active patent applicants in the world and is regarded as one of the most

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innovative companies in Japan (Suzuki & Kodama, 2004, p. 536). Like Canon, many other companies in South Korea used reverse engineering in early stages of industrialization to promote their industrialization process (Kim, 2001, p. 19). However, today due to IPRs, other countries cannot replicate this strategy in order to develop their industries in the same manner. Indeed, Kim (2003, p. 6) states that "Japan, South Korea and Taiwan could not have achieved their current levels of technological sophistication if strong IPRs regimes had been forced on them during the early stage of their industrialization".

Historically, different countries have applied IPRs in different ways, depending on domestic innovation strategies and economic interests. For instance, until 1891 the United States copyright protection was exclusive to its citizens. Until the end of the 1880s, Switzerland did not have patent protection because its industrial sector wanted to use the inventions of foreign countries (Commission on Intellectual Property Rights, 2002, pp. 18-19). It was not until the end of the 19th century that the international community attempted to homogenize IPRs. The first international agreement related to IPRs was the Paris Convention adopted in 1883 in which 11 countries signed a treaty to "facilitate patent and trademark protection and establish certain minimum standards of industrial property protection" (Lehman, 1993, 1994, p. 403).

This treaty regulated the category of industrial property. Three years later another international agreement was created at the Berne Convention originally signed by 10 countries. The objective of this treaty was to protect copyright the other category of intellectual property (Hatch, 1989, p. 174). These treaties were followed by the creation of the Madrid Agreement in 1891. Through it some of the members of the Paris Convention constituted a uniform system for the international registration and filing of trademarks (Bravo, 2001, p. 446). In 1893, the United International Bureaux for the Protection of Intellectual Property (BIRPI[1]) was established with the purpose of administering the Paris and Berne Conventions (WIPO, 2016c). Nearly 70 years later the BIRPI was replaced by the World Intellectual Property Organization (WIPO).

Currently, this organization has 188 members (only countries) and is one of the specialized agencies of the United Nations (UN) (WIPO, 2016d). However, WIPO does not have the power to enforce obligations ensuing any of the treaties it administers. In order to overcome this problem, the United States government proposed to include a new topic related with IPRs in the Uruguay Round of trade negotiations[2] (Cordray, 1994, p. 122). The proposal stated that members of the new World Trade Organization (WTO) should be provided a minimum IPRs protection based on the most recent version of the Paris Convention and the Berne Convention (Reichman, 1995, p. 347). This decision was supported by the European Commission and the Japanese government on behalf of the coalition of the entertainment, software and pharmaceutical industries of these countries (Gervais, 2009, p. 348). The efforts led to the inclusion of varied disciplines regarding IP in the trade multilateral framework (Samahon, 2000, p. 1058).

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is part of the six agreements[3] that established the WTO in 1994 (WTO, 2016d). The goal of the TRIPS agreement is to generalize IPRs establishing a minimum standard of protection (Correa, 2000, p. 1). Basically, the TRIPS agreement protects the subcategories of industrial property and copyright which are included in the Paris and Berne Conventions. Articles 3 and 4 of the TRIPS agreement establish that IPRs are based on the principle of National Treatment (NT) and Most-Favoured-Nation treatment (MFN). NT means that the IPRs cannot discriminate between nationals and foreigners within a country. And MFN means that the IPRs cannot discriminate between countries. According to Article 7 of the TRIPS agreement, the protection and enforcement of IPRs should contribute to technological innovation, transfer of technology and economic welfare.